

II. Amendments to the Claims

This listing of claims replaces without prejudice all prior versions and listings of claims in the application:

Listing of Claims:

1. (Canceled)
2. (Currently Amended) A method of suppressing fires in a space comprising the steps of:
 - (a) generating a fire suppressing gas mixture from at least one non-azide solid propellant chemical, the fire suppressing gas mixture comprising at least a first gas, said first gas comprising nitrogen; ~~and~~
 - (b) delivering at least said first gas into the space; and
 - (c) filtering out a portion of a second gas from the fire suppressing gas mixture at the time of delivery into the space thereby resulting in a clean agent fire suppressing gas mixture for delivery into the space.
3. (Original) The method as claimed in claim 2 wherein the second gas comprises water vapor.

4. (Original) The method as claimed in claim 3 wherein the second gas comprises CO₂.

5. (Previously Presented) The method as claimed in claim 2 wherein substantially all of the second gas is filtered from the fire suppressing gas mixture.

6. (Canceled)

7. (Currently Amended) A method of suppressing fires in a space comprising the steps of:

(a) generating a fire suppressing gas mixture from at least one non-azide solid propellant chemical, the fire suppressing gas mixture comprising at least (i) a first gas comprising nitrogen and (ii) a second gas comprising CO₂;

(b) delivering less than all of the second gas into the space thereby delivering a clean agent fire suppressing gas mixture into the space; and

(c) reducing the temperature of the clean agent fire suppressing gas mixture prior to delivering into the space.

8. (Canceled)

9. (Canceled)

10. (Canceled)

11. (Currently Amended) An apparatus for suppressing fires in a normally occupied enclosed space comprising:

- (a) a sensor for detecting a fire;
- (b) at least one solid inert gas generator that, in response to receiving a signal from the sensor, ignites to generate ~~only~~ a clean agent fire suppressing gas mixture for delivery into the enclosed space; and

- (c) an inert gas discharge diffuser, coupled to said generator, and configured to change a direction of the gas mixture discharged from said generator into said enclosed space,

wherein the clean agent fire suppressing gas mixture includes nitrogen, and

wherein the clean agent fire suppressing gas mixture includes at least one of water vapor and carbon dioxide.

12. (Currently Amended) An apparatus for suppressing fires in a normally occupied enclosed space comprising:

- (a) a sensor for detecting a fire;

(b) at least one solid inert gas generator that, in response to receiving a signal from the sensor, ignites to generate ~~only~~ a fire suppressing gas mixture for delivery into the enclosed space; and

(c) an inert gas discharge diffuser to direct the fire suppressing gas mixture into said enclosed space,

wherein the fire suppressing gas mixture comprises at least two gases, and wherein the apparatus further comprises at least one filter for filtering out at least a portion of the gases from the fire ~~suppression~~ suppressing gas mixture to result in a clean agent fire suppressing gas mixture, at the time of the delivery thereof to the enclosed space.

13. (Previously Presented) The apparatus as claimed in claim 12 wherein the filter is adapted to filter substantially all of the at least one of the gases from the fire suppressing gas mixture.

14. (Cancelled)

15. (Currently Amended) A gas generator for generating and delivering a fire suppressing gas mixture to an enclosed space, comprising:

a housing;

at least one pre-packed solid propellant disposed within said housing;

a pyrotechnic device for initiating ignition of said solid propellant to thereby generate ~~only said~~ a fire suppressing gas mixture;

at least one filter for filtering out at least a portion of one gas from said fire suppressing gas mixture to result in a clean agent fire suppressing gas mixture; and

a discharge diffuser for directing the clean agent fire suppressing gas mixture within said enclosed space; ~~and~~

~~at least one filter for filtering out at least a portion of one gas from said fire suppressing gas mixture.~~

16. (Currently Amended) A gas generator for generating and delivering a fire suppressing gas mixture to an enclosed space, comprising:

a housing;

at least one pre-packed solid propellant disposed within said housing;

a pyrotechnic device for initiating ignition of said solid propellant to thereby generate ~~only said~~ a clean agent fire suppressing gas mixture;

a discharge diffuser, coupled to said housing, and configured to change a direction of the clean agent fire suppressing gas mixture exiting from said housing; and

at least one screen for reducing the temperature of said clean agent fire suppressing gas mixture.

17. (Currently Amended) A gas generator for generating and delivering a fire suppressing gas to an enclosed space, comprising:

a housing;

at least one pre-packed solid propellant disposed within said housing;

a pyrotechnic device for initiating ignition of said solid propellant to thereby generate ~~only said~~ a clean agent fire suppressing gas mixture; and

a discharge diffuser for directing the clean agent fire suppressing gas mixture within said enclosed space;

wherein said discharge diffuser includes a directional cap configured to limit gas discharge from said housing to substantially 180 degrees in a radial direction with respect to a longitudinal axis of said directional cap.

18. (Currently Amended) A gas generator for generating and delivering a fire suppressing gas mixture to an enclosed space, comprising:

a housing;

at least one pre-packed solid propellant disposed within said housing;

a pyrotechnic device for initiating ignition of said solid propellant to thereby generate ~~only said~~ a clean agent fire suppressing gas mixture; and

a discharge diffuser for directing the clean agent fire suppressing gas mixture within said enclosed space;

wherein said discharge diffuser includes a directional cap configured to limit gas discharge from said housing to substantially 360 degrees in a radial direction with respect to a longitudinal axis of said directional cap.

19. (Previously Presented) A gas generator for generating and delivering a fire suppressing gas mixture to an enclosed space, comprising:

a housing;

at least one pre-packed solid propellant disposed within said housing;

a pyrotechnic device for initiating ignition of said solid propellant to thereby generate ~~only said~~ a clean agent fire suppressing gas mixture; and

a discharge diffuser for directing the clean agent fire suppressing gas mixture within said enclosed space,

wherein said discharge diffuser includes a perforated cap having perforations disposed substantially parallel to a longitudinal axis of said discharge diffuser.

20. (Currently Amended) A gas generator for generating and delivering a fire suppressing gas mixture to an enclosed space, comprising:

a housing;

at least one pre-packed solid propellant disposed within said housing;

a pyrotechnic device for initiating ignition of said solid propellant to thereby generate ~~only said~~ a clean agent fire suppressing gas mixture; and

a discharge diffuser for directing the clean agent fire suppressing gas mixture within said enclosed space,

wherein said discharge diffuser includes a directional cap configured to limit gas discharge from said housing to substantially 90 degrees in a radial direction with respect to a longitudinal axis of said directional cap.

21. (New) The method as claimed in claim 2, wherein the clean agent fire suppressing gas mixture is configured to not leave a residue upon evaporation.